

REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the arguments set forth fully below. Claims 1-96 were previously pending in this application. Within the Office Action, claims 1-96 have been rejected.

Double Patenting

Within the Office Action, claims 1-96 have been provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 1-40 of co-pending Application No. 09/801,072.

The independent claim 1, 15, 25, 39, 49, 63, 73, and 87 of the present application and the independent claims 1, 14, 27, 37, 41, 42, 43, and 47 of Application No. 09/801,072 vary in scope. Specifically, the independent claims 1, 15, 25, 39, 49, 63, 73, and 87 of the present application are directed to performing a search using three search methodologies. The independent claims 1, 14, 27, 37, 41, 42, 43, and 47 of Application No. 09/801,072 are directed to repeatedly performing a search using four search methodologies until a research task is completed. Therefore, the independent claims within the present application and the independent claims within the Application No. 09/801,072 are not directed to the same invention.

Specification

Within the Office Action, the Applicant is requested to submit the status of all related applications referenced within the specification. The status of the referenced applications is pending. By the above amendments, the status, filing date and serial number of each referenced co-pending application is included within the specification.

Rejections under 35 U.S.C. §102(e)

Within the Office Action, Claims 1, 4, 5, 7-15, 17-25, 29-39, 41-51, 54-76, and 79-96 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,098,066 issued to Snow et al. (hereafter "Snow"). The Applicant respectfully traverses this rejection for the following reasons.

Snow teaches formatting a searchable database into a tree structure of directories. Each directory includes a document vector for each document within the directory. Each document vector is created by splitting the document into terms and associating a weight to each term based on the frequency with which the term is found in the document. In other words, each document

is tagged with a list of terms, and their weights, found within the document. The tags are subsequently searched during keyword searches. Since most words in the document are tagged as "terms", the document vector does not effectively reduce the number of searchable keywords within the document. Snow then performs an adapted version of a keyword search. More specifically, Snow teaches categorizing documents, and then performing a keyword search by first specifying the category in which the keyword search is to be performed and then performing the keyword search within that category.

Further, Snow does not teach how a user subsequently searches the documents for specific values of predetermined parameters, for example using a parametric search. Snow teaches searching documents based on a keyword search of the indexed (tagged) terms. A keyword search is not the same as a parametric search. Snow is not designed to determine and tag documents according to their attribute-value pairs (parameter field names and their values), and to then search for documents according to specified values of predetermined parameters.

The present invention includes categorizing and parameterizing individual data items within a directory tree structure. Discrete data items are located by defining a navigation path through the directory tree structure to a node associated with the discrete data item. Further, one or more parameters are associated with each discrete data item corresponding to a particular node. These one or more parameters are not keywords, or terms, as in Snow, but instead, each parameter defines a generic field (parameter field) to which a specific value corresponding to the discrete data item is associated. For example, at a "real estate" node, a parameter field name can be "number of rooms" or "price". The parameter field name is different than the actual value eventually associated with the parameter field name in relation to a specific data item.

Continuing the example, homes for sale may be described in property fliers. A generic property flier can include many parameters used to describe the home for sale, where each parameter is identified by its parameter field name. The generic property flier can include parameters with parameter field names such as "number of bedrooms", "number of bathrooms", "square footage", "address", and "price". A particular data item associated with the real estate node can be a property flier for a specific home for sale. The parameter with parameter field name "number of bedrooms" has a value of "3", in this case, and so on for each of the parameters associated with the property flier. In this manner, it is clear that the value of each parameter, which is specific to a particular data item, is different than the parameter field name of each parameter, which generically defines the type of the parameter.

Snow teaches searching documents based on a keyword search. Snow does not teach determining and tagging documents according to their attribute-value pairs (parameter field names and their values), and to then search for documents within a directory tree structure according to specified values of the predetermined parameters.

Additionally, there is no hint, teaching or suggestion within Snow that indicates the use of a dichotomous key search. A dichotomous key search uses a dichotomous key structure, which is a binary key structure or two-node tree. This structure is used as a decision tree mechanism to instruct users in deciphering information given in an answer or question dialog, often a yes or no answer. Examples of this include diagnosing a medical disease, diagnosing a mechanical problem, and working a system such as classifying a biological species by physical attributes. The present application uses a dichotomous key search, as is claimed in the independent claims 1, 15, 49, 63, 73, and 87.

Within the Office Action, it is stated that Snow teaches a subsequent search to correlate a subsequent search criteria to a previously matched item to generate a subsequent matching item which is a sub-segment of the previously matched item, and that the subsequent search is performed utilizing an hierarchical search, a dichotomous key search or a parametric search. To support this assertion, column 4, lines 11-24 and column 7, lines 61-66 of Snow are cited. The Applicant respectfully disagrees with this conclusion. The cited passages of Snow teach a searching method where a user query includes one or more search terms, that is the keyword search previously described above. The cited passages of Snow also teach that after the search results are obtained, the user can modify the original search terms to further limit the search. In other words, another keyword search is performed. Snow does not teach that a subsequent search is performed using either a hierarchical search, a dichotomous key search, or a parametric search.

Claim 1 is directed to a method of performing a research task within a searchable database. The method of claim 1 comprises the steps of utilizing a selective one or more search methodologies including keyword search, hierarchical search, and dichotomous key search to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, utilizing a selective one or more search methodologies including keyword search, hierarchical search, and dichotomous key search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different

search criteria, and repeating the above steps until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search or a dichotomous key search. For at least these reasons the independent claim 1 is allowable over the teachings of Snow.

Claims 4, 5 and 7-14 depend on the independent claim 1. As described above, the independent claim 1 is allowable over the teachings of Snow. Accordingly, claims 4, 5 and 7-14 are all also allowable as being dependent on an allowable base claim.

Claim 15 is directed to research system for performing a research task within a searchable database. The research system of claim 15 comprises a research server configured to utilize a selective one or more search methodologies including keyword search, hierarchical search, and dichotomous key search, to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, to utilize a selective one or more search methodologies including keyword search, hierarchical search, and dichotomous key search, to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of a selective one or more search methodologies including keyword search, hierarchical search, and dichotomous key search, to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search or a dichotomous key search. For at least these reasons the independent claim 15 is allowable over the teachings of Snow.

Claims 17-24 depend on the independent claim 15. As described above, the independent claim 15 is allowable over the teachings of Snow. Accordingly, claims 17-24 are all also allowable as being dependent on an allowable base claim.

Claim 25 is directed to method of performing a research task within a searchable database. The method of claim 25 comprises utilizing a selective one or more search methodologies including keyword search, hierarchical search, and parametric search to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, utilizing a selective one or more search methodologies including keyword search, hierarchical search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the above steps until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach using a parametric search. Still further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search or a parametric search. For at least these reasons the independent claim 25 is allowable over the teachings of Snow.

Claims 29-38 depend on the independent claim 25. As described above, the independent claim 25 is allowable over the teachings of Snow. Accordingly, claims 29-38 are all also allowable as being dependent on an allowable base claim.

Claim 39 is directed to research system for performing a research task within a searchable database. The research system of claim 39 comprises a research server configured to utilize a selective one or more search methodologies including keyword search, hierarchical search, and parametric search to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, to utilize a selective one or more search methodologies including keyword search, hierarchical search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of a selective one or more search methodologies including keyword search, hierarchical search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further

wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed. As discussed above, Snow does not teach using a parametric search. Further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search or a parametric search. For at least these reasons the independent claim 39 is allowable over the teachings of Snow.

Claims 41-48 depend on the independent claim 39. As described above, the independent claim 39 is allowable over the teachings of Snow. Accordingly, claims 41-48 are all also allowable as being dependent on an allowable base claim.

Claim 49 is directed to method of performing a research task within a searchable database. The method of claim 49 comprises the steps of utilizing a selective one or more search methodologies including keyword search, dichotomous key search, and parametric search to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, utilizing a selective one or more search methodologies including keyword search, dichotomous key search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the above steps until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach using a parametric search. Still further, Snow does not teach performing a subsequent search on previous search results using a dichotomous key search or a parametric search. For at least these reasons the independent claim 49 is allowable over the teachings of Snow.

Claims 50, 51 and 54-62 depend on the independent claim 49. As described above, the independent claim 49 is allowable over the teachings of Snow. Accordingly, claims 50, 51 and 54-62 are all also allowable as being dependent on an allowable base claim.

Claim 63 is directed to a research system for performing a research task within a searchable database. The research system of claim 63 comprises a research server configured to utilize a selective one or more search methodologies including keyword search, dichotomous key search, and parametric search to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, to utilize a selective one or more search methodologies including keyword search, dichotomous key search, and parametric search to

correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of a selective one or more search methodologies including keyword search, dichotomous key search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach using a parametric search. Still further, Snow does not teach performing a subsequent search on previous search results using a dichotomous key search or a parametric search. For at least these reasons the independent claim 63 is allowable over the teachings of Snow.

Claims 64-72 depend on the independent claim 63. As described above, the independent claim 63 is allowable over the teachings of Snow. Accordingly, claims 64-72 are all also allowable as being dependent on an allowable base claim.

Claim 73 is directed to a method of performing a research task within a searchable database. The method of claim 73 comprises the steps of utilizing a selective one or more search methodologies including hierarchical search, dichotomous key search, and parametric search to correlate a search criteria to the searchable database for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, utilizing a selective one or more search methodologies including hierarchical search, dichotomous key search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and repeating the above steps until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach using a parametric search. Still further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search, a dichotomous key search, or a parametric search. For at least these reasons the independent claim 73 is allowable over the teachings of Snow.

Claims 74-76 and 79-86 depend on the independent claim 73. As described above, the independent claim 73 is allowable over the teachings of Snow. Accordingly, claims 74-76 and 79-86 are all also allowable as being dependent on an allowable base claim.

Claim 87 is directed to a research system for performing a research task within a searchable database. The research system of claim 87 comprises a research server configured to utilize a selective one or more search methodologies including hierarchical search, dichotomous key search, and parametric search to correlate a search criteria to the searchable database coupled to the research server for generating one or more matching items, wherein each matching item corresponds to a segment of the searchable database, to utilize a selective one or more search methodologies including hierarchical search, dichotomous key search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, and to repeat the utilization of a selective one or more search methodologies including hierarchical search, dichotomous key search, and parametric search to correlate a subsequent search criteria to one of the matching items for generating one or more subsequent matching items, wherein each subsequent matching item is a sub-segment of the matching item used to generate the subsequent matching item, and further wherein the subsequent search criteria is a selective one of the search criteria and a different search criteria, until the research task is completed. As discussed above, Snow does not teach using a dichotomous key search. Further, Snow does not teach using a parametric search. Still further, Snow does not teach performing a subsequent search on previous search results using a hierarchical search, a dichotomous key search, or a parametric search. For at least these reasons the independent claim 87 is allowable over the teachings of Snow.

Claims 88-96 depend on the independent claim 87. As described above, the independent claim 87 is allowable over the teachings of Snow. Accordingly, claims 88-96 are all also allowable as being dependent on an allowable base claim.

Rejections under 35 U.S.C. §103(a)

Within the Office Action, Claims 2, 3, 6, 16, 26-28, 40, 52, 53, 77 and 78 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Snow in view of U.S. Patent No. 6,327,588 issued to Danish et al. (hereafter “Danish”). The Applicant respectfully traverses this rejection.

Claims 2, 3 and 6 are dependent on the independent claim 1. Claim 16 is dependent on the independent claim 15. Claims 26-28 are dependent on the independent claim 25. Claim 40 is dependent on the independent claim 39. Claims 52 and 53 are dependent on the independent claim 49. Claims 77 and 78 are dependent on the independent claim 73. As discussed above, the independent claims 1, 15, 25, 39, 49, and 73 are each allowable over the teachings of Snow. Accordingly, claims 2, 3, 6, 16, 26-28, 40, 52, 53, 77, and 78 are all also allowable as being dependent on an allowable base claim.

For the reasons given above, Applicant respectfully submits that claims 1-96 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,
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